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REMARKS

Applicants appreciate the thorough and complete examination of the present application that is reflected in the final Official Action of July 15, 2005. Applicants also appreciate the Examiner's citation of several new references. However, notwithstanding this thorough examination and the new citation of references, Applicants respectfully submit that all of pending Claims 1, 6-11, 16-22 and 27 are patentable. Detailed analysis now will be provided. No claims have been amended, nor have any new issues been raised. Accordingly, Applicants respectfully request entry of this Request for Reconsideration, reconsideration of the outstanding rejections and allowance of the present application, based on the following analysis.

Claims 1, 9-10 and 16-18 Are Patentable Over U.S. Patent 6,734,465 To Taskar et al.

Claims 1, 6, 9-10 and 16-18 stand rejected under 35 USC §102(e) as being anticipated by Taskar et al. Paragraph 4 of the final Official Action identifies the dome-shaped transmissive optical element of Claim 1 as corresponding to element 13 of Taskar et al., and the transparent dome-shaped shell of Claim 1 as corresponding to element 14 of Taskar et al. However, these elements 13 and 14 of Taskar et al. do not meet the claim recitations.

In particular, Claim 1 recites a dome-shaped transmissive optical element having phosphor dispersed therein and including a dome-shaped inner surface and a dome-shaped outer surface. Yet, none of the nanophosphor downconverters 13 that are illustrated in Figures 2, 3, 4, 6, 7 or 8 of Taskar et al. illustrate that element 13 has a dome-shaped inner surface and a dome-shaped outer surface. Note that Page 5, lines 5-9 of the present application defines "dome-shaped" as follows:

As used herein, the terms "dome" and "dome-shaped" refer to structures having a generally arcuate surface profile, including regular hemispherical structures as well as other generally arcuate structures that do not form a regular hemisphere, which are eccentric in shape and/or have other features, structures and/or surfaces

Moreover, Claim 1 recites that the transparent dome-shaped shell is directly on the dome-shaped inner surface and/or directly on the dome-shaped outer surface of the dome-shaped transmissive optical element having phosphor disposed therein. Yet,

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as clearly shown in Figures 2, 3, 4, 6, 7 and 8 of Taskar et al., the molded epoxy lens 14 is widely spaced apart from the nanophosphor downconverter 13.

The Examiner may argue that the molded epoxy lens 14 is directly on the nanophosphor downconverter 13 in Taskar et al., because the molded epoxy lens 14 can be a solid lens, rather than the hollow lens illustrated in the drawings. However, if the molded epoxy lens 14 is a solid lens that is directly on the nanophosphor downconverter 13, then the solid epoxy lens is no longer a dome-shaped shell, as recited in Claim 1. In either case, Claim 1 is not anticipated by Taskar et al. The Examiner is also encouraged to compare Taskar et al.'s figures with Figures 1C and 1D of the present application, which illustrate dome-shaped elements according to exemplary embodiments of the present invention.

Finally, Applicants wish to note that the final Official Action indicates, at the bottom of Page 3, that Taskar et al. states, at Column 6, lines 3-5, "[i]n the embodiments of FIGS. 2 and 3 a nanophosphor downconverter 13, in a variety of configurations, is disposed within lead frame 12..." (emphasis added). However, this disclosure of "a variety of configurations" does not anticipate the recitations of Claim 1 as described above. For at least these reasons, Claim 1 is patentable over Taskar et al.

Dependent Claim 6 is patentable at least per the patentability of Claim 1 from which it depends. Moreover, this claim is separately patentable because this claim recites that the transparent dome-shaped shell is formed first, and then a dome-shaped mold that includes the transparent dome-shaped shell is filled with a molten liquid that comprises a transparent plastic and phosphor additive. The Official Action states that Taskar et al. Figures 2-4 satisfies these recitations. However, looking at Taskar et al. Figures 2-4, the molded epoxy lens 14 appears to completely surround the entire LED device. So, how could this molded epoxy lens be formed before the nanophosphor downconverter 13 that is contained entirely within the molded epoxy lens 14? It simply could not. Accordingly, Claim 6 is independently patentable.

Independent Claim 9 is patentable over Taskar et al. for the same reasons that were described above in connection with Claim 1. To summarize, none of the embodiments of the nanophosphor downconverter 13 appear to illustrate a first dome-shaped shell and none of the embodiments of the molded epoxy lens 14 appear to

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describe a second dome-shaped shell directly on the inner and/or outer surface of the first dome-shaped shell. For comparison purposes, the Examiner is again encouraged to refer to Figures 1C and 1D of the present application, as illustrating an example of the claimed first and second dome-shaped shells, according to exemplary embodiments of the present invention.

Dependent Claims 10 and 16-18 are patentable at least per the patentability of the independent claims from which they depend.

Claims 9-10 and 16-18 Are Patentable Over U.S. Patent 6,521,915 to Odaki et al.

Claims 9-10 and 16-18 stand rejected under 35 USC §102(e) as being anticipated by Odaki et al. The final Official Action states that element 20 of Odaki et al. corresponds to the claimed second dome-shaped shell. However, element 20 of Odaki et al. is a "sealed member", which, as clearly shown in Odaki et al. Figures 3 and 5, is a solid, thick member, and is not a dome-shaped shell. Accordingly, Claim 9 is patentable over Odaki et al. for at least these reasons. Dependent Claims 10 and 16-18 are patentable at least per the patentability of Claim 9 from which they depend.

Claims 9 and 27 Are Patentable Over U.S. Patent 6,576,930 to Reeh et al.

Claims 9 and 27 stand rejected under 35 USC §102(e) as being anticipated by Reeh et al. The Official Action contends at Paragraph 6 that the second dome-shaped shell of Claim 9 corresponds to the transparent encapsulation 15 of Figure 4 of Reeh et al. However, this transparent encapsulation is not a dome-shaped shell, but, rather, has extensive non-uniform, non-arcuate thickness. Moreover, even if the Examiner interprets the transparent encapsulation 10 of Figure 4 of Reeh et al. as being a dome-shaped shell, this transparent encapsulation 10 is not directly on the inner or outer surface of the luminescence conversion layer 4, but, rather, is widely spaced apart therefrom. Accordingly, Claim 9 is patentable over Reeh et al. for at least these reasons.

Dependent Claim 27 is patentable at least per the patentability of independent Claim 9 from which it depends. Moreover, Reeh et al. does not appear to describe or suggest three dome-shaped shells directly on one another, as recited in Claim 27. More specifically, if the transparent encapsulation 10 is regarded as a dome-shaped

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shell, as illustrated in Reeh et al. Figure 4, then it is not directly on the luminescence conversion layer 4. Moreover, if the transparent encapsulation 10 is a solid, thick encapsulation, then it is not a dome-shaped shell. In either case, the claim recitations with respect to the third dome-shaped shell are not met. Accordingly, Claim 27 is independently patentable for at least these reasons.

Claims 19-21 Are Patentable Over U.S. Patent 6,346,973 to Shibamoto et al.

Claims 19-21 stand rejected under 35 USC §102(b) as being anticipated by Shibamoto et al. The final Official Action cites to Figures 1-5 of Shibamoto et al. However, in these figures, the electroluminescent layer 6 is offset from the keys 35 by an intermediate substrate 4 and an Indium Tin Oxide (ITO) layer 5. Accordingly, the recitation of Claim 19 that "the keypad key shell comprising a transparent plastic including a phosphor dispersed therein" is simply not met by electroluminescent layer 6, which is well beneath the keypad key shell 31, 35. For at least these reasons, Claim 19 is patentable over Shibamoto et al.

Dependent Claims 20 and 21 are patentable at least for the reasons that were described above in connection with Claim 19. Moreover, these claims are independently patentable because the electroluminescent layer 6, which is well beneath the keypad key of Shibamoto et al., does not describe or suggest the recitation of Claim 20 that the phosphor is uniformly dispersed in the keypad key shell, or of Claim 21 that the phosphor is uniformly dispersed in the keypad key face, and is not included in the keypad key wall. Accordingly, these claims are independently patentable for at least these reasons.

Claims 19-21 Are Patentable Over U.S. Patent 5,669,486 to Shima

Claims 19-21 stand also rejected under 35 USC §102(b) as being anticipated by Shima. The final Official Action cites Shima Figures 1-2 and 4. However, in these figures, the electroluminescent layer corresponds to element 3 or 3a, which, as shown in these figures, are well below the display key 7. The electroluminescent layer is certainly not in the display key 7 or the domed shaped spring 1 of Shima, but is, rather, far beneath them. Accordingly, Shima does not describe or suggest that the keypad key shell comprises a transparent plastic including a phosphor dispersed

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therein, as recited in Claim 19. Moreover, dependent Claims 20 and 21 are independently patentable, because Shima's electroluminescent layer 3/3a is certainly not uniformly dispersed in Shima's keypad key shell 7/1, as recited in Claim 20, nor is the electroluminescent layer uniformly dispersed in the keypad key face, and not included in the keypad key wall, as recited in Claim 21.

Claims 7 and 8 Are Patentable Over U.S. Patent Application Publication 2002/0172354 to Nishi

Claims 7 and 8 stand rejected under 35 USC §102(e) as being unpatentable over Nishi. This rejection appears to actually be under 35 USC §103 in view of the quotation of 35 USC §103 at Paragraph 8 of the final Official Action and the Examiner's remarks in Paragraph 9.

In any event, the final Official Action concedes at the middle of Page 9 that, "Nishi is silent about a molten liquid comprising a phosphor additive." The Official Action contends that it would be obvious that the phosphor can be added within the shell. However, in all the references related to keypad keys that were cited in the Official Action, such as U.S. Patent 5,669,486 to Shima and U.S. Patent 6,346,973 to Shibamoto et al., the phosphor is clearly well below the keypad key. Accordingly, if either of these references were combined with Nishi, the phosphor would be provided well below the keypad key. The combination of references, therefore, would not describe or suggest placing the phosphor within the shell of the key itself, as recited in Claim 7. Similarly, there is no description or suggestion to place the phosphor within the keypad key face and then form a keypad key wall that is attached at a keypad key face, as recited in Claim 8.

Finally, dependent Claims 11 and 22 are patentable at least as depending from a patentable independent claim.

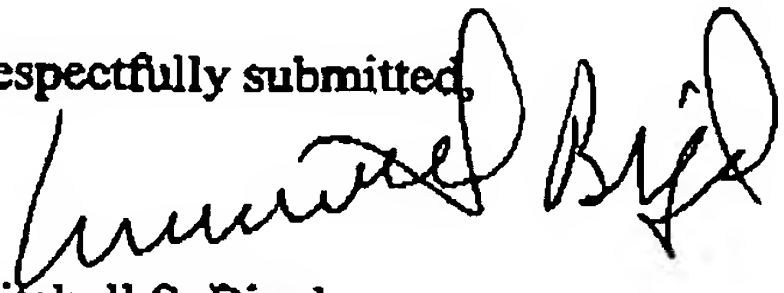
Conclusion

Applicants again thank the Examiner for the thorough examination, the detailed claim-by-claim analysis and the new references that were cited. Applicants have now shown, however, that all of the pending claims are patentable. Accordingly, Applicants respectfully request entry of this Request for

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Reconsideration, withdrawal of the outstanding rejections and allowance of the present application.

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